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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/802,944	03/18/2004	Takashi Nagashima	119154	5166
25944	7590	12/06/2006	EXAMINER	
OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320				SAWHNEY, HARGOBIND S
		ART UNIT		PAPER NUMBER
		2875		

DATE MAILED: 12/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/802,944	NAGASHIMA ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Hargobind S. Sawhney	2875	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 21 July 2006.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-8 is/are pending in the application.
  - 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-8 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|  | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

1. The amendment and the Request for Continued Examination (RCE) each filed on September 11, 2006 have been entered. Accordingly:

- Claim 2 has been canceled; and
- Claims 1 and 4-6 have been amended.

### ***Claim Objections***

2. Claim objected to because of the following informalities.

Claim 1, line 10, "mounted to" should be rephrased as –mounted on--, or – mounted in--. Similar deficiency exists in line 2 of claim 1.

Appropriate correction is required.

Claims 2-8 have been necessarily objected because of their dependency on the objected base claim 1.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1 and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Liu (US Patent No.: 6,238,119 B1).

Regarding claims 1 and 5, Liu ('119 B1) discloses a light pen (Figure 3) comprising:

- a leading end portion 21' combining elements 21 and 22, and removably mounted on the body portion 20 with threaded connection (Figure 3, column 2, lines 14-16);
- a light emitter 32 and an ON/OFF switch 310 disposed in the leading portion 21' (Figure 3, column 2, lines 24-26); the leading portion 21' including the light emitter 32 integrally mounted – interpreted as fixed with mechanical interference, fasteners, or chemical bonding- in a cap 22 (Figure 3, column 2, lines 41 and 42);
- the switch 310 integrally formed – as interpreted above- in a housing 21(Figure 3, column 2, lines 15 and 24); the cap 22 removably mounted on the housing 21 (Figure 3, column 2, lines 18-21); and
- a power source 30 received in a rod-like body 20 (Figure 3, column 2, line 18).

#### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art

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are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Liu (US Patent No.: 6,238,119 B1) in view of Huang (US Patent No.: 5,343,376).

Liu ('119 B1) discloses a light pen (Figure 3) comprising a light emitting portion receiving a light emitter element 32 operationally coupled to a circuit 31 and a switch 310 as applied to claim 1 discussed in section 4 above. However, Liu ('119 B1) does not teach the cap including a current controlled element.

On the other hand, Huang ('376) discloses a light-emitting pointer (Figure 1) comprising a light emitter module 2 operationally connected to a circuit board 25, which includes current controlled element Q1 (Figures 1 and 5, column 1, lines 57-59; column 2, lines 10 and 63-65).

It would be have been obvious to one of ordinary skill in the art at the time of the invention to modify the light pen of Liu ('119 B1) by adding current controlled element connected to the light-emitting element as taught by Huang ('376) for the benefits of stabilizing current supplied to light emitting diodes for their predetermined performance.

7. Claims 1 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inuiya (US Patent No.: 3,885,096).

Regarding claim 1, Inuiya ('096) discloses a light pen (Figure 3) comprising: a rod-like body portion 44 (Figure 3, column 4 , line 28); a leading end portion 45' – the combination including the forward end of the body 44 adjacent the element 12 and element 45 (Figure 3, column 4 , lines 31-33)- removably mounted on the body portion 44 (Figure 3, column 4 , lines 31-33); a light emitter 42 (Figure 3,

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column 4, line 31); an ON/OFF switch 48a,48b (Figure 3, column 4, lines 36-38); the leading end portion 45' including: a cap 45 integrally forming the light emitter 42 (Figure 3, column 4, lines 31-35); the switch 48a,48b being integral with the housing – the forward portion of the body 44 (Figure 3, column 4, lines 36-38); and the cap 45 being movably mounted on the housing (Figure 3, column 4, lines 38-46). Note: the limitation “integral” has been broadly interpreted as -- fixed with mechanical interference, fasteners, or chemical bonding--.

Although, Inuiya ('096) teaches a light pen including a cap movable within the housing, it does not teach the cap being removably mounted on the housing.

It would be have been obvious to one of ordinary skill in the art at the time of the invention to make the leading end of the light pen of Inuiya ('096) removable for replacement or repair of internals including a light emitter and a switch, since it has been held that making a component removable is a merely a matter obvious engineering choice, and involves only routine skill in the art. USPQ 348, 349 (CCPA 1961).

Regarding claim 4, Inuiya ('096), modifies as detailed above, discloses the light pen further including the leading end portion 45' being pressed in predetermined direction for turning the switch 48a, 48b ON (Figure 3, column 4, lines 38-40).

8. Claims 6 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schumacher (US Patent No.: 4,315,282) in view of Liu (US Patent No.: 6,238,119 B1).

Regarding Claim 6, Schumacher ('282) discloses a presentation system (Figure 1) comprising a light pen 18:

- a material presentation apparatus (Figure 1, column 5, line 2) comprising:  
a material mounting pedestal 20 (Figure 1, column 5, line 18); the material  
mounted on the mounting pedestal 20 from which a virtual screen is  
generated (Figure 1, column 5, lines 17-20); a photographic section 24  
supported on the material mounting pedestal 20 photographing the  
material (Figure 1, column 5, lines 17-20) on a display device 12 (Figure  
1, column 5, lines 2 and 3); an image output section 31 (Figure 1, column  
5, lines 41-45); a controller section 55 executing image processing  
(Figure 1, column 5, lines 4-9 and 63-68); the controller section  
calculating coordinates of the light emitter, and performing a  
predetermined pointing function at the coordinates of the display device  
12 corresponding to the calculated coordinates of the emitter on the  
virtual screen upper surface of the material mounting pedestal 20;- and  
a light pen 18 (Figure 1, column 5, line 12) emitting light on the virtual  
screen - upper surface of the material-mounting pedestal 20.

However, Schumacher ('282) does not specifically teach a light pen including a leading end portion removably mounted on the body portion; and the leading end-portion receiving a light emitter and a switch within itself.

On the other hand, Liu ('119 B1) discloses a light pen (Figure 3) comprising:  
Liu ('119 B1) discloses a light pen (Figure 3) comprising:

- a leading end portion 21' combining elements 21 and 22, and removably mounted on the body portion 20 with threaded connection (Figure 3, column 2, lines 14-16);
- a light emitter 32 and an ON/OFF switch 310 disposed in the leading portion 21' (Figure 3, column 2, lines 24-26); the leading portion 21' including the light emitter 32 integrally mounted – interpreted as fixed with mechanical interference, fasteners, or chemical bonding- in a cap 22 (Figure 3, column 2, lines 41 and 42);
- the switch 310 integrally formed – as interpreted above- in a housing 21(Figure 3, column 2, lines 15 and 24); the cap 22 removably mounted on the housing 21 (Figure 3, column 2, lines 18-21); and
- a power source 30 received in a rod-like body 20 (Figure 3, column 2, line 18).

It would be have been obvious to one of ordinary skill in the art at the time of the invention to make the leading end of the light pen of Schumacher ('282) by providing the light pen as taught by Liu ('119 B1) for the benefits of wiring, displaying and illumination needed for effective presentation.

Regarding Claim 8, Schumacher ('282) in view of Liu ('119 B1) discloses the presentation system further including:

- a monitor 19 – combination of elements 12 and 19 (Figure 1) – displaying an image photographed by the photographing section 24 (Schumacher, Figure 1, column 5, lines 17-20); and

the virtual screen – the portion bearing the presentation material on the material mounting pedestal 20 – being set on the monitor 19 (Schumacher, Figure 1); and the photographic section 24 photographing the monitor 19 (Schumacher, Figure 1).

9. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schumacher (US Patent No.: 4,315,282) in view of Liu (US Patent No.: 6,238,119 B1) as applied to claim 6 above, and further in view of Tang et al. (US Patent No.; 5,239,373).

Schumacher ('282) in view of Liu ('119 B1) discloses the presentation system including a photographic section and a presentation material-mounting table. However, neither combined nor individual teaching of Schumacher ('282) and Liu ('119 B1) discloses an optical filter disposed in the optical path of the photographing section.

On the other hand, Tang et al. ('373) discloses a presentation system (Figures 3 and 7 and 4) comprising an optical filter 42 disposed in the optical path of the photographic section 12 allowing photographing only the light of a specific wavelength (Figure 7, column 7, lines 7-11).

It would be have been obvious to one of ordinary skill in the art at the time of the invention to modify the presentation system of Schumacher ('282) in view of Liu ('119 B1) by providing and positioning the optical filter as taught by Tang et al. ('373) for benefit and advantages of blocking the images, not desired, from being detected by the camera.

***Response to Amendment***

10. Applicant's arguments filed on July 21, 2006 with respect to the 35 U.S.C. 102(b) rejections of claims 1 and 5; and 35 U.S.C. 103(a) rejections of claims 1, 3 and 4 have been fully considered but they are not persuasive.

Argument: Regarding claims 1, 3 and 5, Liu ('119 B1) does not each or suggest:

- a removable leading-end portion including a cap integrally receiving an emitter; a housing integrally receiving a switch element; and the cap being removably mounted to the housing.

Response: As discussed in section 4 above, Liu ('119 B1) discloses a light pen (Figure 3) comprising:

- a leading end portion 21' combining elements 21 and 22, and removably mounted on the body portion 20 with threaded connection;
- a light emitter 32 and an ON/OFF switch 310 disposed in the leading portion 21'; the leading portion 21' including the light emitter 32 integrally mounted – interpreted as fixed with mechanical interference, fasteners, or chemical bonding- in a cap 22;

- the switch 310 integrally formed – as interpreted above- in a housing 21; the cap 22 removably mounted on the housing 21; and
- a power source 30 received in a rod-like body 20.

Thus, the light pen taught by Liu ('119 B1) meets the limitations of claims 1, 3 and 5.

Argument: Regarding claims 1 and 4, Inuiya ('096) does not teach or suggest:

- a removable leading-end portion including a cap integrally receiving an emitter; a housing integrally receiving and a switch element; and the cap being removably mounted to the housing.

Response: As discussed in section 7 above, regarding claim 1, Inuiya ('096) discloses a light pen (Figure 3) comprising:  
a rod-like body portion 44; a leading end portion 45' – the combination including the forward end of the body 44 adjacent the element 12, and the cap 45 (Figure 3, column 4 , lines 31-33)- insertably mounted to the body portion 44; a light emitter 42; an ON/OFF switch 48a,48b; the leading end portion 45' including: a cap 45 integrally accommodating the light emitter 42; the switch 48a,48b being integral with the housing – the forward portion of the body 44; and the cap 45 being movably mounted on the housing.

Although, Inuiya ('096) teaches a light pen including a cap movable within the housing, it does not teach the cap being removably mounted on the housing.

It would have been obvious to one of ordinary skill in the art at the time of the invention to make the leading end of the light pen of Inuiya ('096) removable for replacement or repair of internals including a light emitter and a switch, since it has been held that making a component removable is a merely a matter obvious engineering choice, and involves only routine skill in the art. USPQ 348, 349 (CCPA 1961). T

Thus, the light pen taught by Inuiya ('096) meets the limitations of claims 1 and 4.

11. Applicant's arguments filed on July 21, 2006 with respect to the 35 U.S.C. 103(a) rejections of claims 6-8 have been fully considered but are moot in view of the new ground(s) of rejections necessitated by the amendment.

### ***Conclusion***

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hargobind S. Sawhney whose telephone number is 571 272 2380. The examiner can normally be reached on 8:00 A.M. - 4:30 P.M.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on 571 272 2378. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HSS  
12/3/2006

Examiner: Hargobind S. Sawhney

